

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026965**Date Inspected:** 29-Dec-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

1. 11W/PP101/W4 Lifting Lug Holes (Interior)
2. 12W/PP111/W3 Lifting Lug Hole (Exterior)
3. 11E/PP103/E3 Lifting Lug hole Repair (Exterior)

1. 11W/PP101/W4 Lifting Lug Holes (Interior)

This QA Inspector randomly observed QC Inspector Sal Merino perform a Magnetic Particle (MT) inspection of the back gouged weld area on face "B" of "A" deck lifting lug holes W2 and W4 located at 11W/PP101/W4. This QA Inspector observed that Mr. Merino found no rejectable indications and the work appeared to be in general conformance with the contract specifications.

This QA Inspector randomly observed ABF welder Mike Jimenez (Welder ID 4671) performing welding operations as per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position on "A" deck Lifting Lug Hole W2 at 11W/PP101/W4. This QA Inspector observed the use of E7018-H4R electrodes and QC Inspector Sal Merino verify that the preheat temperature and that the welding parameters (Amps=135) were in accordance with ABF-WPS-D15-1110A-Revision 1. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

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### 2. 12W/PP111/W3 Lifting Lug Hole W4 (Exterior)

This QA Inspector observed QC Inspector Sal Merino utilize a Bridge Cam Gage to measure the fit-up of the 20 mm plate in the BU-4a joint on lifting lug hole W4 at 12W/PP111/W3. This QA Inspector verified the fit-up as acceptable and employed a 65°C Tempilstik to ensure the minimum pre-heat temperature had been achieved. This QA Inspector randomly observed ABF welder Todd Jackson (welder ID 4639) performing the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position and observed the QC Inspector verify the welding parameters were in accordance with ABF-WPS-D15-1050A-CU. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was in progress and appeared to be in general compliance with the approved WPS and the contract specifications.

This QA Inspector randomly observed QC Inspector Sal Merino perform a final Magnetic Particle (MT) inspection of the weld area on OBG “A” deck lifting lug holes at the locations listed below. This QA Inspector observed that Mr. Merino found no rejectable indications and the work appeared to be in general conformance with the contract specifications.

11W/PP101/W4 W1 and W3

11W/PP101/W4 W2 and W4

### 3. 11E/PP103/E3 Lifting Lug hole Repair (Exterior)

This QA Inspector randomly observed ABF welder Salvador Sandoval performing the back-gouge operation of ultrasonic rejectable indications on “A” deck Lifting Lug Holes W2 and W4 at 11E/PP103/E3 located at “Y” 78 mm: (20 mm wide; 540 mm length; and 10 mm in depth) on W4 at “Y” 110 mm: (20 mm wide; 330 mm length; and 10 mm in depth). This QA Inspector observed QC Inspector Sal Merino perform a Magnetic Particle Inspection (MT) of the excavation to determine the soundness of the metal. Upon completion of the testing this QA Inspector verified that no rejectable indications were present.

This QA Inspector randomly observed ABF welder Salvador Sandoval (Welder ID 2202) performing the repair welding operation of ultrasonic indications as per the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position on “A” deck Lifting Lug Hole 11E/PP103/E3/W2. This QA Inspector observed the use of E7018-H4R electrodes and QC Inspector Sal Merino verify that the preheat temperature was at the minimum of 10 degrees C and that the welding parameters (Amps=135) were in accordance with WPS D1.5-1001- Repair. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

#### Splice Survey

This QA Inspector performed a progress survey of the westbound and eastbound OBG plate splices, lifting lug hole and vent holes from 11W-14W and 11E-14E as directed by QA Lead Inspector, Daniel Reyes.

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this

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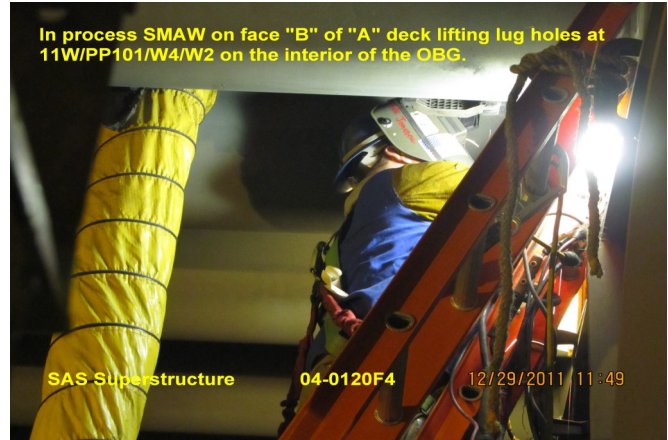
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report. The issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

### Summary of Conversations:

The were no pertinent conversations to report.



### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Frey,Doug
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Levell,Bill
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QA Reviewer
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